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EXAMINER
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FLEURANTIN, JEAN B

ART UNIT	PAPER NUMBER
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2172

DATE MAILED: 01/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/971,959

Applicant(s)

NAMBA, ISAO

Examiner

Jean B Fleurantin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 October 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7,9-12,14-18,20-23 and 25-28 is/are rejected.
- 7) ☒ Claim(s) 8,13,19 and 24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All   b) ☐ Some \*   c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)            | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>3</u> | 6) <input type="checkbox"/> Other: _____                                    |

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**DETAILED ACTION**

1. This is in response to the application filed on October 09, 2001, in which claims 1-28 are presented for examination.

***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Information Disclosure Statement***

3. The information disclosure statement (IDS) file on 10/09/01 (Paper No. 3) complies with the provisions of M.P.E.P. 609. It has been placed in the application file. The information referred to therein has been considered as to merits. (See attached form).

***Drawings***

4. The drawings filed on May 29, 2002 are approved by the Draftsperson under 37 CRF 1.84 or 1.152 as indicated in the "Notice of Draftsperson's Patent Drawing Review," PTO-948.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7, 9-12, 14-18, 20-23 and 25-28 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,950,187 issued to Tsuda (“hereinafter Tsuda”).

As per claim 1, Tsuda discloses a retrieval apparatus (see figure 2, col. 6, lines 1-2), comprising:

“a question sentence input unit receiving a question sentence for retrieval” as a means for inputting a sentence and selecting a character string similar, (see col. 2, lines 26-27);

“a retrieval execution unit retrieving data from a database” as a means for retrieving documents from a database (see col. 2, lines 29-30) “and extracting data similar to the question sentence inputted by the question sentence input unit” as a means for viewing the document having characteristic of a data (keyword) similar to the input, (see col. 2, lines 30-32);

“a word contribution degree calculation unit calculating a contribution degree of a word contributing to extraction by the retrieval execution unit in a retrieval result extracted by the retrieval execution unit” as a means for calculating the relevance levels of a documents of a retrieved candidate, (see col. 2, lines 60-62; col. 8, lines 27-33 and lines 45-52);

“and a word contribution degree output unit outputting the contribution degree calculated by the word contribution degree calculation unit together with a corresponding word” as a means for calculating the relevance level, in which the highlight level of the character string specified at a time of inputting is converted into the priority level of the character string, (see col. 8, lines 45-52).

As per claim 2, Tsuda discloses, “wherein said word contribution degree output unit outputs the corresponding word in a display format reflecting the contribution degree” as in the system the priority level which can display a font having a size from of 8 points to a maximum of 72 points, (see col. 8, lines 64-66).

As per claim 3, Tsuda discloses, “wherein said word contribution degree output unit outputs the corresponding word using a font reflecting the contribution degree” as a means for outputting the document, in which a size of a character font is considered, (see col. 6, lines 58-59).

As per claim 4, Tsuda discloses, “wherein said word contribution degree output unit outputs the corresponding word in a character size reflecting the contribution degree” as a means for outputting the document, in which a size of a character font is considered, (see col. 6, lines 58-61).

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As per claim 5, Tsuda discloses, “wherein said word contribution degree output unit outputs the corresponding word in a color reflecting the contribution degree” as the type of highlight level, in which other attribute is allowable to use such as a color of the character, (see col. 7, lines 1-3).

As per claim 6, Tsuda discloses, “wherein said word contribution degree output unit is a display device” as the output section 13 displays on a display the highest level documents, (see col. 6, lines 23-25).

As per claim 7, Tsuda discloses, “wherein said retrieval execution unit divides the question sentence inputted by said question sentence input unit into words, retrieves data from the database for each of the divided words and extracts data similar to the word” as a means for viewing the document having characteristic of a data (keyword) similar to the input, (see col. 2, lines 30-32).

As per claim 9, Tsuda discloses “a retrieval apparatus for extracting data similar to a question word by retrieval” as a means for viewing the document having characteristic of a data (keyword) similar to the input, (see col. 2, lines 30-32) “and displaying a contribution degree of a word contributing to the extraction together with a corresponding word on a screen” (col. 10, line 61 to col. 11, line 2), comprising:

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“a word designation unit designating a word displayed on the screen” as the user selects the file name in which displays in the window 44 and the content is also displayed, (see figure 14, col. 10, lines 61 to col. 11, line 6);

“and a weighting unit weighting the word designated by the word designation unit for the retrieval” as a means for retrieving expression in which a weighted Boolean is used, (see col. 11, lines 25-28).

As per claim 10, Tsuda discloses, “a retrieval apparatus” (see figure 2, col. 6, lines 1-2), comprising:

“a question sentence input unit inputting a question sentence for retrieval” as a means for inputting a sentence and selecting a character string similar, (see col. 2, lines 26-27);

“a retrieval execution unit dividing the inputted question sentence inputted by the question sentence input unit into words” as a means for viewing the document having characteristic of a data (keyword) similar to the input, (see col. 2, lines 30-32), “retrieving data from a database storing data to be retrieved for each of the divided words” as a means for retrieving documents from a database (see col. 2, lines 29-30), “and extracting data similar to the question sentence inputted by said question sentence input unit” as a means for viewing the document having characteristic of a data (keyword) similar to the input, (see col. 2, lines 30-32);

“a word contribution degree calculation unit calculating a contribution degree of a word contributing to the extraction by the retrieval execution unit in a retrieval result extracted by the

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retrieval execution unit” as a means for calculating the relevance levels of a documents of a retrieved candidate, (see col. 2, lines 60-62; col. 8, lines 27-33 and lines 45-52);

“a word contribution degree output unit displaying the contribution degree calculated by the word contribution degree calculation unit together with a corresponding word on a screen” as a means for calculating the relevance level, in which the highlight level of the character string specified at a time of inputting is converted into the priority level of the character string, and the priority level in which the system displays a font having a size from of 8 points to a maximum of 72 points, (see col. 8, lines 45 52 and lines 64-66);

“a word designation unit designating the word displayed on the screen” as the user selects the file name in which displays in the window 44 and the content is also displays, (see figure 14, col. 10, lines 61 to col. 11, line 6);

“and a weighting unit weighting the word designated by the word designation unit for the retrieval” as a means for retrieving expression in which a weighted Boolean is used, (see col. 11, lines 25-28).

As per claim 11, Tsuda discloses, “wherein said weighting unit weights a word so that data of the retrieval result can be ranked as the top” as retrieval in a document, in which the highest word weight is given to a word occurring in a headline of the document, (see col. 1, lines 41-44).

As per claim 12, Tsuda discloses, “the retrieval apparatus further comprising a re-retrieval execution unit retrieving data from a database storing data to be retrieved” as a means



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for retrieving documents from a database (see col. 2, lines 29-30) “and extracting data similar to a word weighted by said weighting unit” as a means for retrieving expression in which a weighted Boolean is used, (see col. 11, lines 25-28).

As per claim 14, Tsuda discloses, a retrieval method (see col. 6, lines 1-2), comprising:

“receiving a question sentence for retrieval” as a means for inputting a sentence and selecting a character string similar, (see col. 2, lines 26-27);

“retrieving data from a database storing data to be retrieved” as a means for retrieving documents from a database (see col. 2, lines 29-30);

“extracting data similar to the inputted question sentence” as a means for viewing the document having characteristic of a data (keyword) similar to the input, (see col. 2, lines 30-32);

“calculating a contribution degree of a word contributing to the extraction in the extracted retrieval result” as a means for calculating the relevance levels of a documents of a retrieved candidate, (see col. 2, lines 60-62; col. 8, lines 27-33 and lines 45-52);

“and outputting the calculated contribution degree together with a corresponding word” as a means for calculating the relevance level, in which the highlight level of the character string specified at a time of inputting is converted into the priority level of the character string, (see col. 8, lines 45 52).

As per claim 15, Tsuda discloses, “wherein the corresponding word is outputted in a display format reflecting the contribution degree” as in the system the priority level which can

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display a font having a size from of 8 points to a maximum of 72 points, (see col. 8, lines 64-66).

As per claim 16, Tsuda discloses, “wherein the corresponding word is outputted using a font reflecting the contribution degree” as a means for outputting the document, in which a size of a character font is considered, (see col. 6, lines 58-59).

As per claim 17, Tsuda discloses, “wherein the corresponding word is outputted to a display device” as the output section 13 displays on a display the highest level documents, (see col. 6, lines 23-25).

As per claim 18, Tsuda discloses, “wherein the inputted question sentence is divided into words, the database is retrieved for each of the divided words and similar data are extracted” as a means for viewing the document having characteristic of a data (keyword) similar to the input, (see col. 2, lines 30-32).

As per claim 20, Tsuda discloses, “a retrieval method for extracting data similar to a question word by retrieval” as a means for viewing the document having characteristic of a data (keyword) similar to the input, (see col. 2, lines 30-32) “and displaying a contribution degree of a word contributing to the extraction together with a corresponding word on a screen” (col. 10, line 61 to col. 11, line 2) comprising:

“designating a word displayed on the screen” as the user selects the file name in which displays in the window 44 and the content is also displayed, (see figure 14, col. 10, lines 61 to col. 11, line 6);

“and weighting the designated word for the retrieval” as a means for retrieving expression in which a weighted Boolean is used, (see col. 11, lines 25-28).

As per claim 21, Tsuda discloses, “a retrieval method” (col. 6, lines 1-2), comprising:

“inputting a question sentence for retrieval” as a means for inputting a sentence and selecting a character string similar, (see col. 2, lines 26-27);

“dividing the inputted question sentence into words”, as a means for inputting more than one retrieval word, (see col. 2, lines 57-59);

“retrieving data from a database storing data to be retrieved for each of the divided words” as a means for retrieving documents from a database, (see col. 2, lines 29-30);

“extracting data similar to the inputted question sentence” as a means for viewing the document having characteristic of a data (keyword) similar to the input, (see col. 2, lines 30-32);

“calculating a contribution degree of a word contributing to the extraction in the extracted retrieval result” as a means for calculating the relevance levels of a documents of a retrieved candidate, (see col. 2, lines 60-62; col. 8, lines 27-33 and lines 45-52);

“displaying the calculated contribution degree together with a corresponding word on a screen” as a means for calculating the relevance level, in which the highlight level of the

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character string specified at a time of inputting is converted into the priority level of the character string, and the priority level can display a font size, (see col. 8, lines 45-66);

“designating the word displayed on the screen” as the user selects the file name in which displays in the window 44 and the content is also displayed, (see figure 14, col. 10, lines 61 to col. 11, line 6);

“and weighting the designated word for the retrieval” as a means for calculating the relevance level, in which the highlight level of the character string specified at a time of inputting is converted into the priority level of the character string, (see col. 8, lines 45-52).

As per claim 22, Tsuda discloses, “wherein the weight is attached so that the data of the retrieval result can be ranked as the top” as retrieval in a document, in which the highest word weight is given to a word occurring in a headline of the document, (see col. 1, lines 41-44).

As per claim 23, Tsuda discloses, “wherein a database storing data to be retrieved is retrieved” as a means for retrieving documents from a database (see col. 2, lines 29-30) “and data similar to the words to which the weight is attached are extracted” as a means for retrieving expression in which a weighted Boolean is used, (see col. 11, lines 25-28).

As per claim 25, Tsuda discloses, a retrieval program for enabling a computer to execute a function (see col. 6, lines 1-2), the function comprising:

“receiving a question sentence for retrieval” as a means for inputting a sentence and selecting a character string similar, (see col. 2, lines 26-27);

“retrieving data from a database storing data to be retrieved” as a means for retrieving documents from a database (see col. 2, lines 29-30);

“extracting data similar to the inputted question sentence” as a means for viewing the document having characteristic of a data (keyword) similar to the input, (see col. 2, lines 30-32);

“calculating a contribution degree of a word contributing to the extraction in the extracted retrieval result” as a means for calculating the relevance levels of a documents of a retrieved candidate, (see col. 2, lines 60-62; col. 8, lines 27-33 and lines 45-52);

“and outputting the calculated contribution degree together with a corresponding word” as a means for calculating the relevance level, in which the highlight level of the character string specified at a time of inputting is converted into the priority level of the character string, (see col. 8, lines 45 52).

As per claim 26, Tsuda discloses, “a retrieval program which enables a computer for extracting data similar to a question sentence by retrieval” as a means for viewing the document having characteristic of a data (keyword) similar to the input, (see col. 2, lines 30-32) “and displaying a contribution degree of a word contributing to the extraction together with a corresponding word, to execute a function” (col. 10, line 61 to col. 11, line 2), the function comprising:

“designating the word displayed on the screen” as the user selects the file name in which displays in the window 44 and the content is also displayed, (see figure 14, col. 10, lines 61 to col. 11, line 6);

“and weighting the designated word for the retrieval” as a means for retrieving expression in which a weighted Boolean is used, (see col. 11, lines 25-28).

As per claim 27, Tsuda discloses, “a retrieval program for enabling a computer to execute a function” (see figure 2, col. 6, lines 1-2), the function comprising:

“inputting a question sentence for retrieval” as a means for inputting a sentence and selecting a character string similar, (see col. 2, lines 26-27);

“dividing the inputted question sentence into words” as a means for inputting more than one retrieval word, (see col. 2, lines 57-59);

“retrieving data from a database” as a means for retrieving documents from a database (see col. 2, lines 29-30) “storing data to be retrieved for each of the divided words” as a means for viewing the document having characteristic of a data (keyword) similar to the input, (see col. 2, lines 30-32);

“extracting data similar to the inputted question sentence” as a means for inputting a sentence and selecting a character string similar, (see col. 2, lines 26-27);

“calculating a contribution degree of a word contributing to the extraction in the extracted retrieval result” as a means for calculating the relevance levels of a documents of a retrieved candidate, (see col. 2, lines 60-62; col. 8, lines 27-33 and lines 45-52);

“displaying the calculated contribution degree together with a corresponding word on a screen” as a means for calculating the relevance level, in which the highlight level of the character string specified at a time of inputting is converted into the priority level of the character string, and the priority level can display a font size, (see col. 8, lines 45-66);

...“designating the word displayed on the screen” as the user selects the file name in which displays in the window 44 and the content is also displayed, (see figure 14, col. 10, lines 61 to col. 11, line 6);

“and weighting the designated word for the retrieval” as a means for calculating the relevance level, in which the highlight level of the character string specified at a time of inputting is converted into the priority level of the character string, (see col. 8, lines 45-52).

As per claim 28, Tsuda discloses a retrieval apparatus (see figure 2, col. 6, lines 1-2), comprising:

“question sentence input means for inputting a question sentence for retrieval” as a means for inputting a sentence and selecting a character string similar, (see col. 2, lines 26-27);

“a retrieval execution means for retrieving data from a database storing data to be retrieved” as a means for retrieving documents from a database (see col. 2, lines 29-30) “and extracting data similar to the question sentence inputted by the question sentence input means” as a means for viewing the document having characteristic of a data (keyword) similar to the input, (see col. 2, lines 30-32);

“word contribution degree calculation means for calculating a contribution degree of a word contributing to extraction by the retrieval execution means in a retrieval result extracted by the retrieval execution means” as a means for calculating the relevance levels of a documents of a retrieved candidate, (see col. 2, lines 60-62; col. 8, lines 27-33 and lines 45-52);

“word contribution degree output means for outputting the contribution degree calculated by the word contribution degree calculation means together with a corresponding

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word” as a means for calculating the relevance level, in which the highlight level of the character string specified at a time of inputting is converted into the priority level of the character string, (see col. 8, lines 45 52).

### *Claim Objections*

6. Claims 8, 13, 19 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art of record does not teach or suggest in combination with other elements,  
wherein

said word contribution degree calculation unit further comprises

a high/low-similarity group acquisition unit obtaining both a group of documents with high similarity a group of documents with low similarity from the retrieval result extracted by said retrieval execution unit; and

a contribution degree calculation unit calculating a difference between a ratio of the divided word in the high-similarity group and the ratio of the word in the low-similarity group and designating the difference as a contribution degree of the word as recited in claim 8.

The prior art of record does not teach or suggest in combination with other elements,

a re-retrieval execution unit retrieving data from a database storing data to be retrieved and extracting data similar to a word weighted by said weighting unit,



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wherein

said weighting unit sequentially weights a plurality of prescribed data of the retrieval result so that the data of the retrieval result can be ranked as the top and designates an average of the plurality of weights of the plurality of data as a weight value of the word as recited in claim 13.

The prior art of record does not teach or suggest in combination with other elements

wherein the calculation

obtains both a group of documents with high similarity and a group of documents with low similarity from the retrieval result,

calculates a difference between a ratio of each divided word in the high-similarity group and a ratio of the word in the low-similarity group and designates the difference as a contribution degree of the divided word as recited in claim 19.

The prior art of record does not teach or suggest in combination with other elements,

wherein a database storing data to be retrieved is retrieved,

data similar to the words to which the weight is attached are extracted,

the weight is sequentially attached to a plurality of prescribed data of the retrieval result so that the data of the retrieval result can be ranked as the top and an average of the plurality of weight of the plurality of data is designated as a weight value of the word as recited in claim 24.

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***Prior Art***

7. The prior art of record and not relied on upon is considered pertinent to applicant's disclosure. Namba U.S. Patent No. 5,721,899 relates to a retrieval apparatus and a dictionary/text retrieval method. Nakao et al. U.S. Patent No. 6,205,456 relates to an apparatus for summarizing and electronic written in a natural language.

***Contact Information***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean B Fleurantin whose telephone number is 703-308-6718. The examiner can normally be reached on 7:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, BREENE JOHN E can be reached on 703-305-9790. The fax phone number for the organization where this application or proceeding is assigned is 703-746-7239.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

  
Jean Bolte Fleurantin

December 26, 2003